

REMARKS

The Examiner's comments together with the cited references have been carefully studied. Favorable reconsideration in view of the following remarks is respectfully requested.

Applicants herewith file a terminal disclaimer in compliance with 37 CFR 1.321(c) to overcome provisional double patenting rejections based on nonstatutory double patenting grounds. This terminal disclaimer is filed to correctly identify the applications being disclaimed by Serial Numbers, rather than Publication numbers.

Claims 1-3 and 5-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. in view of Poncelet et al. According to the Examiner:

Liu teaches an ink jet recording element comprising a support and an ink jet receiving layer, and the ink jet receiving layer contains a polyvinyl alcohol binder and an aluminosilicate polymer....Liu also teaches that the aluminosilicate used in the ink jet receiving layer has an Al/si molar ratio of 1:4 to 4:1...and that the use of the aluminosilicate results in the ink jet receiving layer having an enhanced gloss, an enhanced weathering resistance, and that the layer produces images having enhanced quality. In addition, Liu recites that the ink receiving layer, after printing, contains an amount of aluminosilicate particles that is from 50 to 100% by weight of the ink receiving layer and the additional ink-absorbent layer, which clearly meets the broad recitation of an amount between 5 and 95%, as in the present claim....In combining the aluminosilicate polymer with the suitable binder, it follows that Liu also provides that a coating composition for the ink-receiving layer is thus obtained. Liu's teachings, however, merely recite a general teaching that aluminosilicate can be used in the ink jet receiving layer to achieve these results. Poncelet, drawn to an organic/inorganic composite and photographic product containing such a composite, teaches a hybrid, organic/inorganic composite aluminosilicate polymer having an Al/Si molar ratio between 1 and 3, and an Al concentration between 5×10^{-4} and 5×10^{-2} mol/l....Poncelet also teaches that the organic/inorganic composite aluminosilicate polymer can be used in image-receiving layers and products having these layers applied thereon, and that such layers exhibit enhanced performance characteristics. As both Liu and Poncelet are drawn to analogous fields of invention, it would have been obvious to a person having ordinary skill in the art at the time of invention to have made the ink jet recording material taught by Liu and to incorporate the composite polymer taught by Poncelet.

Applicants respectfully traverse such rejection, for the reasons set forth in the previous response filed September 22, 2008, and further in view of the following additional comments.

The present claims require use of a hybrid aluminosilicate polymer obtained by a specified preparation method by either treating a mixed aluminum and silicon alkoxide of which the silicon has both hydrolyzable substituents and a non-hydrolyzable substituent, or a mixed aluminum and silicon precursor resulting from the hydrolysis of a mixture of aluminum compounds and silicon compounds only having hydrolyzable substituents and silicon compounds having a non-hydrolyzable substituent, with an aqueous alkali, in the presence of silanol groups. In accordance with the invention, the presence of such non-hydrolyzable group results in a hybrid aluminosilicate polymer, i.e., an aluminosilicate which retains such non-hydrolyzable group covalently bonded to silicon. Use of such a hybrid aluminosilicate is clearly not taught or suggested by either of Lie et al or Poncelet et al., as such references only disclose use of fully alkoxylated (i.e., all hydrolyzable groups) silicon compounds in the preparation of the aluminosilicates thereof (see, e.g., use of ethyl orthosilicate at col. 23, line 15 of Liu et al, and Si(OCH₃)₄ at col. 4, line 33 of Poncelet et al). The further presence of a water soluble organic polymer during the formation of the aluminosilicate in Poncelet et al. does not result in a hybrid aluminosilicate polymer as employed in the present invention (i.e., with retained non-hydrolyzable substituents), but rather a conventional polymeric aluminosilicate in an organic polymeric matrix. Thus, even if one were to employ the composite product of Poncelet et al in the ink jet recording material of Liu et al. as proposed by the Examiner, the present claimed invention still would not be obtained. Thus, the proposed rejection represents clear error, and withdrawal thereof is respectfully urged.

The Examiner argues that Applicant's assertions are insufficient to establish that the aluminosilicate polymer obtained by the preparation method claimed is different from that employed in Liu et al. Such argument is not understood, as Applicant's claimed invention explicitly requires use of a hybrid aluminosilicate polymer prepared from a silicon compound having a non-hydrolyzable (and thus inherently retained) group,

which is not employed in the aluminosilicate polymers used in Lie et al (nor in the aluminosilicate polymers that are composited with a water soluble organic polymer in Poncelet et al.). Thus, such aluminosilicate polymers themselves are clearly distinct, and neither Liu et al or Poncelet et al suggest the use of a hybrid aluminosilicate polymer in accordance with the present invention. Should the Examiner elect to maintain such rejection, he is respectfully requested to identify where in either of such references use of such a hybrid aluminosilicate polymer obtained from a silicon compound with a non-hydrolyzable group is taught.

Regarding the Examiner's statement that if the product in a "product-by-process" claim is the same as or obvious from a product of the prior art the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product, in addition to the compositional difference explained above (and thus, the product is not the same as the prior art product) the Examples of the present application further clearly demonstrate improved performance with respect to dye keeping properties and gloss for ink jet recording elements employing a hybrid aluminosilicate polymer in accordance with the invention (e.g., Examples 8-12) in comparison to use of aluminosilicate polymers prepared without non-hydrolyzable groups (Example 7).

While it is believed clear in view of the above and previous comments that the proposed combination would not in any event result in the claimed invention, it is still further maintained that such combination would further not have been suggested to one skilled in the art as Poncelet et al is directed towards use of organic/inorganic composites as antistatic components for a photographic product, while Liu et al is directed towards ink jet recording materials, and the Examiner has not proposed any justification as to why an improvement in antistatic materials designed for use in photographic materials would be suggested to one skilled in the art for use in an ink jet recording material. While the Examiner states that Poncelet recites that the use of the "hybrid, organic/inorganic polymer" can be used in "image-receiving layers ", the Examiner has failed to identify any support for such statement (and further, as explained above, the composite products of Poncelet

et al in any event are not hybrid aluminosilicate polymers). The Examiner's allegation that Poncelet is a "reasonably pertinent reference" because it teaches the inclusion of a hybrid aluminosilicate polymer into a photographic element which is a function/feature that is "especially pertinent" to the invention at hand in Liu et al. is not understood, as Liu et al has nothing to do with photographic elements. Further, the aluminosilicate materials employed in Liu et al are not disclosed as being used for antistatic purposes, as is the use in Poncelet et al. Accordingly, there has been no reasonable motivation proposed for the proposed combination, and a *prima facie* case of obviousness for such combination has not been established (again, Applicant maintains in any event that even if such teachings were to be combined, the present invention still would not be obtained as explained above).

In summary, Poncelet et al teaches a composite based on an organic polymer and a polymeric aluminosilicate, not a hybrid aluminosilicate polymer. The aluminosilicate in Poncelet et al is not prepared from silicon precursor that has a non-hydrolyzable substituent, and thus the aluminosilicate polymer obtained in Poncelet et al is distinct from that employed in the present invention. Thus, the use of a composite product as taught in Poncelet in the ink jet recording material of Liu et al would not result in the present claimed invention. Further, Poncelet et al is in any event directed towards use of such composite materials as antistats in photographic elements, and does not suggest their use in ink jet recording materials. The rejection represents clear error, and withdrawal of the rejection is accordingly strongly urged.

In view of the foregoing remarks and amendment, the claims are now deemed allowable and such favorable action is courteously solicited.

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

Respectfully submitted,



Andrew J. Anderson
Attorney for Applicant(s)
Registration No. 33,564

AJA:clb
Rochester, NY 14650
Telephone: (585) 722-9662
Facsimile: (585) 477-1148

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.

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